

OIPE

#2

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/023,437

DATE: 01/10/2002
TIME: 14:57:59

Input Set : A:\736.txt
Output Set: N:\CRF3\01102002\J023437.raw

ENTERED

3 <110> APPLICANT: JOHNSTON, STEPHEN A.
4 STEMKE-HALE, KATHERINE
5 SYKES, KATHRYN F.
6 KALTENBOECK, BERNHARD
8 <120> TITLE OF INVENTION: METHODS AND compositions for Vaccination COMPRISING NUCLEIC
ACID
9 AND/OR POLYPEPTIDE SEQUENCES OF CHLAMYDIA
11 <130> FILE REFERENCE: UTSD:736US
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/023,437
14 <141> CURRENT FILING DATE: 2001-12-17
16 <150> PRIOR APPLICATION NUMBER: 60/225,839
17 <151> PRIOR FILING DATE: 2000-12-15
19 <160> NUMBER OF SEQ ID NOS: 69
22 <170> SOFTWARE: PatentIn Ver. 2.1
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 127
26 <212> TYPE: DNA
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
31 Primer
33 <400> SEQUENCE: 1
34 ctgcacctgg tccttcgcct gagaggtgca gatcttggat cctaagtaag taagcttgca 60
35 tgcctgcagg tcgactctag gtgactaata tctagaggat cgatcccggtg tggcatccct 120
36 gtgaccc 127
39 <210> SEQ ID NO: 2
40 <211> LENGTH: 15
41 <212> TYPE: DNA
42 <213> ORGANISM: Artificial Sequence
44 <220> FEATURE:
45 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
46 Primer
48 <400> SEQUENCE: 2
49 gatctggatc ccgat 15
52 <210> SEQ ID NO: 3
53 <211> LENGTH: 11
54 <212> TYPE: DNA
55 <213> ORGANISM: Artificial Sequence
57 <220> FEATURE:
58 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
59 Primer
61 <400> SEQUENCE: 3
62 atcgggctcc a 11
65 <210> SEQ ID NO: 4
66 <211> LENGTH: 19
67 <212> TYPE: DNA
68 <213> ORGANISM: Artificial Sequence
70 <220> FEATURE:

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/023,437

DATE: 01/10/2002

TIME: 14:57:59

Input Set : A:\736.txt

Output Set: N:\CRF3\01102002\J023437.raw

```

71 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
72     Primer
74 <400> SEQUENCE: 4
75 ccgcaccctc tctgattac                               19
78 <210> SEQ ID NO: 5
79 <211> LENGTH: 17
80 <212> TYPE: DNA
81 <213> ORGANISM: Artificial Sequence
83 <220> FEATURE:
84 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
85     Primer
87 <400> SEQUENCE: 5
88 ctggagtggc aacttcc                                   17
91 <210> SEQ ID NO: 6
92 <211> LENGTH: 449
93 <212> TYPE: DNA
94 <213> ORGANISM: Artificial Sequence
96 <220> FEATURE:
97 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
98     Primer
100 <400> SEQUENCE: 6
101 gaatgtattc gcacgcaaaa atacgctgaa gctttgcttc ctgtcacgac agcgatcaat 60
102 tctggagtgc cgcctatcac cttoctocat gacctcactg ttttttatcg cgatgtactg 120
103 ctaaacaag atcagggaaa ttctctctta tcggccatcg ccatgcacta ttccagtga 180
104 tgtttattag aaatcattga ttctcttggg gaagcggcca aacatctaca acaaactatt 240
105 ttgaaaaaaa catttttaga aacagtcatc atccatctta ttccgatatg ccaacgtccc 300
106 tcttttagaaa ctctgttttc tcaactgaaa acatccacgt ttgatacagt gagaaacgta 360
107 cccacgcagc aagaaccctc gaaaccgagt atacaacctg aaaaacacta tcaagatcag 420
108 agttttctta ctccaccttc tcccacgcc                               449
111 <210> SEQ ID NO: 7
112 <211> LENGTH: 149
113 <212> TYPE: PRT
114 <213> ORGANISM: Chlamydia psittaci
116 <400> SEQUENCE: 7
117 Glu Cys Ile Arg Thr Gln Lys Tyr Ala Glu Ala Leu Leu Pro Val Thr
118 1      5      10      15
120 Thr Ala Ile Asn Ser Gly Val Ala Pro Ile Thr Phe Leu His Asp Leu
121      20      25      30
123 Thr Val Phe Tyr Arg Asp Val Leu Leu Asn Lys Asp Gln Gly Asn Ser
124      35      40      45
126 Pro Leu Ser Ala Ile Ala Met His Tyr Ser Ser Glu Cys Leu Leu Glu
127      50      55      60
129 Ile Ile Asp Phe Leu Gly Glu Ala Ala Lys His Leu Gln Gln Thr Ile
130 65      70      75      80
132 Phe Glu Lys Thr Phe Leu Glu Thr Val Ile Ile His Leu Ile Arg Ile
133      85      90      95
135 Cys Gln Arg Pro Ser Leu Glu Thr Leu Phe Ser Gln Leu Lys Thr Ser
136      100     105     110
138 Thr Phe Asp Thr Val Arg Asn Val Pro Gln Gln Gln Glu Pro Ser Lys

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/023,437

DATE: 01/10/2002

TIME: 14:57:59

Input Set : A:\736.txt

Output Set: N:\CRF3\01102002\J023437.raw

```

139          115          120          125
141 Pro Ser Ile Gln Pro Glu Lys His Tyr Gln Asp Gln Ser Phe Leu Thr
142          130          135          140
144 Ser Pro Ser Pro Thr
145 145
148 <210> SEQ ID NO: 8
149 <211> LENGTH: 1332
150 <212> TYPE: DNA
151 <213> ORGANISM: Chlamydia psittaci
153 <400> SEQUENCE: 8
154 atgacatcag caacatacca agtttcttct agaaaatacc gccctcaaac atttgccgaa 60
155 atgctggggc aagatgccgt ggtcactgtt ttaaaaaatg ctttgcagtt tcaacgtgtc 120
156 ggcgatgcgt atttattttc agggattcgc ggaacaggaa aaacaacttt agcaagaatc 180
157 ttgtcaaaag ccttaactg taaagagctg actcctgaac atgaaccatg caaccagtgt 240
158 tgtgtttgta aagaaatctc ttccaggaacc tccttagacg tgatcgaaat cgatgggtgc 300
159 tcgcaccgag gtattgaaga tatccgtcaa atcaatgaaa ccgtgctctt tactcctgcc 360
160 aaatcacaat ataaaatcta tatcatagat gaagtccata tgctgactaa ggaggcgttt 420
161 aattccttac tcaaaacttt agaagagcct ccgagccatg taaaattctt cttagcgact 480
162 acagaaaatt ataaaatacc cagcaccatt ttaagtcgtt gtcaaaaaat gcacctaaag 540
163 agaattcctg agacaatgat tgtagataag cttagcatcca tatctcaagc aggtgggata 600
164 gaaacctctc gagaagctct tcttctatt gctagagcag cacagggaag cttacgcgat 660
165 gctgaatctc tttatgatta tgtcataggg ttattcccta catctttatc cccagagttg 720
166 gttgcagacg cattaggttt atttatctca gacaccttag ctacattatc agaatgtatt 780
167 cgcacgcaaa aatacgcgtg agctttgctt cctgtcacga cagcgatcaa ttctggagtc 840
168 gcgcctatca ctttctctca tgacctcact gttttttatc gcgatgtact gctaaacaaa 900
169 gatcagggaa attctctctc atcgccatc gccatgcact attccagtga atgtttatta 960
170 gaaatcattg atttctttg tgaagcggcc aaacatctac aacaaactat ttttgaaaaa 1020
171 acatttttag aaacagtcac catccatctt attcggatat gccaacgtcc ctcttttagaa 1080
172 actctgtttt ctcaactgaa aacatccacg tttgatacag tgagaaacgt accccagcag 1140
173 caagaaccct cgaaaccgag tatacaacct gaaaaaact atcaagatca gagtttctta 1200
174 acttcacctt ctcccacgcc aaaagttcag catcaaaaag aagcttcccc ttcttttagtg 1260
175 ggatcagcta ctatagatac gctttttacaa tttgctgttg ttgagttttc cggaatttta 1320
176 accaaggagt aa 1332
179 <210> SEQ ID NO: 9
180 <211> LENGTH: 443
181 <212> TYPE: PRT
182 <213> ORGANISM: Chlamydia psittaci
184 <400> SEQUENCE: 9
185 Met Thr Ser Ala Thr Tyr Gln Val Ser Ser Arg Lys Tyr Arg Pro Gln
186 1 5 10 15
188 Thr Phe Ala Glu Met Leu Gly Gln Asp Ala Val Val Thr Val Leu Lys
189 20 25 30
191 Asn Ala Leu Gln Phe Gln Arg Val Ala His Ala Tyr Leu Phe Ser Gly
192 35 40 45
194 Ile Arg Gly Thr Gly Lys Thr Thr Leu Ala Arg Ile Phe Ala Lys Ala
195 50 55 60
197 Leu Asn Cys Lys Glu Leu Thr Pro Glu His Glu Pro Cys Asn Gln Cys
198 65 70 75 80
200 Cys Val Cys Lys Glu Ile Ser Ser Gly Thr Ser Leu Asp Val Ile Glu

```

RAW SEQUENCE LISTING

DATE: 01/10/2002

PATENT APPLICATION: US/10/023,437

TIME: 14:57:59

Input Set : A:\736.txt

Output Set: N:\CRF3\01102002\J023437.raw

```

201          85          90          95
203 Ile Asp Gly Ala Ser His Arg Gly Ile Glu Asp Ile Arg Gln Ile Asn
204          100          105          110
206 Glu Thr Val Leu Phe Thr Pro Ala Lys Ser Gln Tyr Lys Ile Tyr Ile
207          115          120          125
209 Ile Asp Glu Val His Met Leu Thr Lys Glu Ala Phe Asn Ser Leu Leu
210          130          135          140
212 Lys Thr Leu Glu Glu Pro Pro Ser His Val Lys Phe Phe Leu Ala Thr
213 145          150          155          160
215 Thr Glu Asn Tyr Lys Ile Pro Ser Thr Ile Leu Ser Arg Cys Gln Lys
216          165          170          175
218 Met His Leu Lys Arg Ile Pro Glu Thr Met Ile Val Asp Lys Leu Ala
219          180          185          190
221 Ser Ile Ser Gln Ala Gly Gly Ile Glu Thr Ser Arg Glu Ala Leu Leu
222          195          200          205
224 Pro Ile Ala Arg Ala Ala Gln Gly Ser Leu Arg Asp Ala Glu Ser Leu
225          210          215          220
227 Tyr Asp Tyr Val Ile Gly Leu Phe Pro Thr Ser Leu Ser Pro Glu Leu
228 225          230          235          240
230 Val Ala Asp Ala Leu Gly Leu Leu Ser Gln Asp Thr Leu Ala Thr Leu
231          245          250          255
233 Ser Glu Cys Ile Arg Thr Gln Lys Tyr Ala Glu Ala Leu Leu Pro Val
234          260          265          270
236 Thr Thr Ala Ile Asn Ser Gly Val Ala Pro Ile Thr Phe Leu His Asp
237          275          280          285
239 Leu Thr Val Phe Tyr Arg Asp Val Leu Leu Asn Lys Asp Gln Gly Asn
240          290          295          300
242 Ser Pro Leu Ser Ala Ile Ala Met His Tyr Ser Ser Glu Cys Leu Leu
243 305          310          315          320
245 Glu Ile Ile Asp Phe Leu Gly Glu Ala Ala Lys His Leu Gln Gln Thr
246          325          330          335
248 Ile Phe Glu Lys Thr Phe Leu Glu Thr Val Ile Ile His Leu Ile Arg
249          340          345          350
251 Ile Cys Gln Arg Pro Ser Leu Glu Thr Leu Phe Ser Gln Leu Lys Thr
252          355          360          365
254 Ser Thr Phe Asp Thr Val Arg Asn Val Pro Gln Gln Gln Glu Pro Ser
255          370          375          380
257 Lys Pro Ser Ile Gln Pro Glu Lys His Tyr Gln Asp Gln Ser Phe Leu
258 385          390          395          400
260 Thr Ser Pro Ser Pro Thr Pro Lys Val Gln His Gln Lys Glu Ala Ser
261          405          410          415
263 Pro Ser Leu Val Gly Ser Ala Thr Ile Asp Thr Leu Leu Gln Phe Ala
264          420          425          430
266 Val Val Glu Phe Ser Gly Ile Leu Thr Lys Glu
267          435          440
270 <210> SEQ ID NO: 10
271 <211> LENGTH: 123
272 <212> TYPE: DNA
273 <213> ORGANISM: Chlamydia psittaci

```

RAW SEQUENCE LISTING

DATE: 01/10/2002

PATENT APPLICATION: US/10/023,437

TIME: 14:57:59

Input Set : A:\736.txt

Output Set: N:\CRF3\01102002\J023437.raw

```

275 <400> SEQUENCE: 10
276 gagtttattc aagagtatga aagttcttta aatgaagtca ttaaaactat ggcagcatcc 60
277 atcgctatgg atgtaaccga cgtggttatt gaggttggtt tatcccatgt gatcagtcoc 120
278 gaa 123
281 <210> SEQ ID NO: 11
282 <211> LENGTH: 41
283 <212> TYPE: PRT
284 <213> ORGANISM: Chlamydia psittaci
286 <400> SEQUENCE: 11
287 Glu Phe Ile Gln Glu Tyr Glu Ser Ser Leu Asn Glu Val Ile Lys Thr
288 1 5 10 15
290 Met Ala Ala Ser Ile Ala Met Asp Val Thr Asp Val Val Ile Glu Val
291 20 25 30
293 Gly Leu Ser His Val Ile Ser Pro Glu
294 35 40
297 <210> SEQ ID NO: 12
298 <211> LENGTH: 303
299 <212> TYPE: DNA
300 <213> ORGANISM: Chlamydia psittaci
302 <400> SEQUENCE: 12
303 atgacacaac cctatgtaac tagagaagac attatacttc tggcgaagag ttcagctctg 60
304 gaattaagcg aagagtttat tcaagagtat gaaagttcct taaatgaagt cattaaaact 120
305 atggcagcat ccacgctat ggatgtaacc gacgtgggta ttgaggttg tttatcccat 180
306 gtgatcagtc ccgaagattt acgagaagat atcggtgcct caagtttctc tcgtgaggag 240
307 tttctaacta atgtccctga atccttaggg ggattagtaa aagtaccac agtcattaag 300
308 tag 303
311 <210> SEQ ID NO: 13
312 <211> LENGTH: 100
313 <212> TYPE: PRT
314 <213> ORGANISM: Chlamydia psittaci
316 <400> SEQUENCE: 13
317 Met Thr Gln Pro Tyr Val Thr Arg Glu Asp Ile Ile Leu Leu Ala Lys
318 1 5 10 15
320 Ser Ser Ala Leu Glu Leu Ser Glu Glu Phe Ile Gln Glu Tyr Glu Ser
321 20 25 30
323 Ser Leu Asn Glu Val Ile Lys Thr Met Ala Ala Ser Ile Ala Met Asp
324 35 40 45
326 Val Thr Asp Val Val Ile Glu Val Gly Leu Ser His Val Ile Ser Pro
327 50 55 60
329 Glu Asp Leu Arg Glu Asp Ile Val Ala Ser Ser Phe Ser Arg Glu Glu
330 65 70 75 80
332 Phe Leu Thr Asn Val Pro Glu Ser Leu Gly Gly Leu Val Lys Val Pro
333 85 90 95
335 Thr Val Ile Lys
336 100
339 <210> SEQ ID NO: 14
340 <211> LENGTH: 514
341 <212> TYPE: DNA
342 <213> ORGANISM: Chlamydia psittaci

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/023,437

DATE: 01/10/2002

TIME: 14:58:00

Input Set : A:\736.txt

Output Set: N:\CRF3\01102002\J023437.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number